

DOCKET NO: 291257US0PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
PETER HUNTEMANN, ET AL. : EXAMINER: KASHNIKOW, ERIK
SERIAL NO: 10/581,449 :
FILED: JUNE 1, 2006 : GROUP ART UNIT: 1794
FOR: SYNTACTIC POLYURETHANE :
CONTAINING OIL, PREFERABLY
CASTOR OIL

DECLARATION UNDER 37 C.F.R. §1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Now comes Peter Huntemann who deposes and declares that:

1. I am a graduate of _____ University and received my _____ degree in the year _____.
2. I have been employed by the Elastogran / BASF for the past 21 years, as a researcher in the field of Pipe insulation / protection.
3. The following experiments were conducted by me or under my direct supervision and control.

The polyurethane composition were tested as 5 L shapes (dog bones) with a thickness of 4mm produced by mixing components described in Table 1 as follows:

08.10.06
VPL

| Components (parts by weight) | Example | Comparative Sample |
|------------------------------|---------|--------------------|
| Castor oil | 58.75 | 2.5 |
| Polyol 1 ¹ | 30 | 43.9 |
| Polyol 2 ² | - | 31.65 |
| Dipropylene glycol | 7.3 | 18 |
| Additive | 3.95 | 3.95 |
| Hollow microspheres | 42 | 42 |

¹Based on propyleneoxide with an OH-number of 104

²Based on propyleneoxide with an OH-number of 55

The additive contained a catalyst, defoamer and moisture scavenger added in 2.5 pbw of castor oil. The polyisocyanate component was Iso PMDI 92050, a diphenylmethanediisocyanate.

Shapes (cubes)

The cubes were stored in artificial seawater at a temperature of 80°C and the water uptake was measured at time intervals of 7 days, 14, days and 28 days. The data is as follows:

| Water content after days (wt.%) | example | Comp example |
|---------------------------------|---------|--------------|
| 0 | 0 | 0 |
| 7 | 2.0 | 3.6 |
| 14 | 2.3 | 3.8 |
| 28 | 2.0 | 3.7 |

The data demonstrates an increases uptake in water, indicative of hydrolysis of the syntactic polyurethane for the comparative sample containing only 2.5 pbw of castor oil as compared with the example containing 58.75 pbw of castor oil.

I declare under penalty of perjury under the laws of the United States of America
that the foregoing is believed to be true and correct. 28 USC 1746(1)



04.10.08

Date

Wateruptake of Syntactic Foam with / without Castoroil

Specimen: Normstab S 2; Temp.: 80°C ; Media: art. seawater

